

U.S. DEPARTMENT OF ENERGY
**Office of Electricity Delivery and
Energy Reliability**



ENERGY ASSURANCE DAILY

September 19, 2005

Highlights/Major Developments

Update: Hurricane Katrina

**OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)
U.S. DEPARTMENT OF ENERGY
Hurricane Katrina Situation Report #38
September 19, 2005 (3:00 PM EDT)**

HIGHLIGHTS

Currently, 275,431 customers remain without electric power in Louisiana and Mississippi due to Hurricane Katrina. This is down by over 2.4 million from a peak of 2.7 million customers that were without power after Hurricane Katrina struck the region.

At 2 PM, 9/19 the center of Tropical Storm Rita was located just southeast of Long Island in the Bahamas, about 165 miles southeast of Nassau and about 380 miles east-southeast of Key West, FL. The storm's maximum sustained winds are near 60 mph with tropical storm force winds extending outward up to 115 miles. Additional strengthening is expected and Rita could become a hurricane during the next 24 hours. Rita is expected to move into the Gulf of Mexico during the coming week. <http://www.nhc.noaa.gov/>. The Government of the Bahamas has discontinued all warnings for the Turks and Caicos.

Entergy continues to make significant progress securing the natural gas system and restoring service. Of the 145,000 Entergy gas customers to date, 86,500 (60%) have been secured and 52,500 (36%) have been restored. The restored customers are primarily in the Algiers, Uptown, Gentilly, Central City, Lakeshore and Lakeview areas, along with 10% of the French Quarter and 50% of the Central Business District.

Working gas in storage increased to 2,758 Bcf as of Friday, September 9, which is 3.7 percent above the 5-year average inventory level for the report week, according to EIA's *Weekly Natural Gas Storage Report*. The implied net injection of 89 Bcf is 3 percent above the 5-year average of 86 Bcf and about 7 percent less than last year's injection of 96 Bcf. It is also the largest net injection since the beginning of July and marks the first time since late June that the implied net injection has exceeded the 5-year average. Despite continued natural gas production shut-ins in the Gulf of Mexico, which reduces supplies from what they otherwise would have been, the relatively large net injection occurred as futures prices hold a significant premium to the Henry Hub spot price offering a strong economic incentive to store natural gas for the winter heating season.

DOE staff have been at the National Response Coordination Center (NRCC) at FEMA HQ, the Interagency Incident Management Team at HQ, FEMA Region IV, and the State Emergency Operation Centers (EOC) in Louisiana for several weeks. Today, in response to further activation orders from FEMA, OE deployed two staff to FEMA Region IV in Atlanta and one to the State EOC in Tallahassee, FL, for Hurricane Rita response.

PETROLEUM AND GAS INFORMATION

According to MMS reports on 9/19, 10.26 percent of 819 manned platforms and 1.49 percent of 134 rigs remain evacuated in the Gulf of Mexico (GOM). Today's shut-in oil production is 837,648 barrels of oil per day. The shut-in oil production is equivalent to 55.84 percent of the normal daily oil production in the GOM, which is currently approximately 1.5 million barrels of oil per day. Shut-in gas production is 3.375 billion cubic feet per day. This shut-in gas production is equivalent to 33.75 percent of the normal daily gas production in the GOM, which is currently approximately 10 billion cubic feet per day.

Improvement in GOM Shut-in Oil and Gas 8/30/05 – 9/17/05

Date	Percent of GOM Oil Shut-in	Percent of GOM Gas Shut-in
August 30	95.20	87.99
August 31	91.45	83.46
September 1	90.43	78.66
September 2	88.53	72.48
September 3	78.98	57.80
September 4	No data reported	No data reported
September 5	69.57	54.13
September 6	58.02	41.06
September 7	57.37	40.36
September 8	60.12	40.20
September 9	59.88	38.29
September 10	59.84	38.21
September 11	No data reported	No data reported
September 12	57.38	37.84
September 13	56.45	37.20
September 14	56.25	35.18
September 15	56.14	34.11
September 16	56.06	33.84
September 17	55.84	33.75

MMS has provided the following estimates of Hurricane Katrina damage to Outer Continental Shelf Infrastructure in the Gulf of Mexico: 46 producing structures destroyed; 20 producing structures extensively damaged; 4 drilling rigs destroyed; 9 drilling rigs extensively damaged; and 6 rigs adrift (all adrift rigs have been located, remanned, and are having power brought up on them).

MMS reports that most of the destroyed platforms were 30- year-old shelf platforms with minimal production in the West Delta, Grand Isle, and South Pass areas.

Air Products (major supplier of hydrogen) announced today that portions of its New Orleans, La. industrial gas complex, which sustained extensive damage from Hurricane Katrina, should begin operations within the coming months, with substantial operations anticipated by the end of the calendar year. The company also announced that it has secured alternate feed gas sources and has re-established partial operations at its Sarnia, Ontario, Canada production facility, originally shut down due to a planned suspension of a supplier's feed gas. The two plants, at New Orleans, and Sarnia represent approximately 90 percent of the company's liquid hydrogen production in North America.

The Captain of the Port of New Orleans re-opened the Inner Harbor Navigation Canal (IHNC) on the Gulf Intra Coastal Waterway (GICW) north of the Turning Basin. The IHNC remains closed south of the Turning Basin due to salvage operations at the Florida Avenue Bridge. Vessels can continue to access the GICW east of the IHNC via the Baptiste Collette alternate route. The opening of this waterway will now allow access from Lake Pontchartrain to the Gulf of Mexico through the IHNC, GICW and/or the Mississippi River Gulf Outlet (MRGO).

The Gulf Intracoastal Waterway (GICW) is now open from mile 55, West of Harvey Lock (Houma) westward through the Harvey Lock, which is operational. The Algiers Lock, while operational, may be closed to navigation until further notice due to lock operator safety concerns. Currently, the GICW remains closed from the Inner Harbor Navigational Canal eastward to mile 60, East of Harvey Lock.

The U.S. Coast Guard reports that of the estimated 6.8 million gallons of oil released into the environment due to Hurricane Katrina, 98% of it has been recovered, contained, evaporated, or has dispersed naturally.

Entergy Gas Operations has repaired a total of 215 gas leaks and has reduced gas leakage in the system by 75 percent since the hurricane hit. They continue gas leak detection and repair throughout the New Orleans area, with 82% assessed. Some of the areas in the lower parts of the New Orleans "bowl" have significant mud (1-3 feet deep), which makes it difficult to access.

The tables below show no change for the four refineries shutdown as a result of damage from Hurricane Katrina.

Table 1. Shutdown Refineries

Refinery	Location	State	Capacity (bbl/day)	Current Status
ConocoPhillips*	Belle Chasse	LA	247,000	No power - major damage
ExxonMobil	Chalmette	LA	187,200	No power - water damage
Murphy	Meraux	LA	120,000	No power – water is starting to recede, currently making assessment of damage, leaking crude oil tank repaired
ChevronTexaco*	Pascagoula	MS	325,000	Damage unknown – assessment being made

ELECTRICITY INFORMATION

STATE OUTAGE DATA

Utility	Customers w/o Power	% Customers w/o Power from Katrina
Louisiana*	243,884	22%
Mississippi	31,547	2%

*Louisiana data is reported by the Louisiana Public Service Commission and their percentage outage numbers are used in calculating the percentage of total outage.

STATE REPORTS

Mississippi and Louisiana

In Louisiana 243,884 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (10:00 PM, 9/18/05 latest report).

Louisiana Outage Data by Utilities with Significant Outages (10:00 PM 9/18/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Louisiana	48,086	10%
Entergy New Orleans	167,268	81%
Wash-St. Tammany	15,756	35%
CLECO	12,412	15%
Total for state shown includes companies with low percentage outages not shown in the Table	243,884	22%

*Louisiana data and percentages are reported by the Louisiana Public Service Commission.

As of reporting 9/17/05 Mississippi had 31,547 customers without power, which represents 2 percent of customers in the state, including 18,776 Mississippi Power customers and 12,771 customers of the Electric Power Associations of Mississippi (EPAOFMS).

Entergy has almost 6,000 line and vegetation workers supporting restoration activities.

Entergy Transmission reports 29 lines and 23 substations out of service as of 5:00 PM 9/18/05. This is down from 181 lines and 263 substations out of service following Katrina's hit.

Additional Information

Hurricane Katrina/Tropical Storm Rita Evacuation and Production Shut-in Statistics Report as of Monday, September 19, 2005

Next Report will be issued on Tuesday, September 20, 2005 at 1:00 PM CDT

For information concerning the storm click on www.mms.gov

This survey reflects 54 companies' reports as of 11:30 a.m. Central Daily Time.

Districts	Lake Jackson	Lake Charles	Lafayette	Houma	New Orleans	Total
Platforms Evacuated	0	0	0	2	81	83
Rigs Evacuated	0	0	0	1	5	5
Oil, BOPD Shut-in	0	620	913	57,932	778,183	837,648
Gas, MMCF/D Shut-In	0	22.00	2.80	433.59	2,916.45	3,374.84

<http://www.mms.gov/ooc/press/2005/press0919.htm>

These cumulative numbers reflect updated production numbers from all previous reports. The reports only represent input received by 11:30 a.m. CDT. If a company does not report by 11:30 a.m. it is not included in the special information release, but it is included in the cumulative shut-in production. This may result in an apparent increase in the cumulative report amount.

Electricity

Thunderstorms Leave 37,000 Without Power in Connecticut September 17

28,000 Connecticut Light and Power and 9,000 United Illuminating customers lost power as a result of thunderstorms passing through southwestern Connecticut Saturday evening. No estimate was made as to when power would be restored.

http://www.connpost.com/news/ci_3040178

TVA's Browns Ferry 3 Nuke in Alabama Ramps up to 23 Percent September 19

The unit shut on Sept. 17 during maintenance to repair a moisture level control valve.

Reuters, 15:38 September 19, 2005

Exelon's Braidwood 1 Nuke in Illinois Ramps up to 99 Percent September 19

The unit was shut on Sept. 11 to repair a seal on a reactor coolant pump.

Reuters, 15:38 September 19, 2005

Quad Cities 1 Nuclear-Power Production At 98%, NRC

Bloomberg, 08:01 September 19, 2005

Limerick 2 Nuclear-Power Production At 77%, NRC

Bloomberg, 08:01 September 19, 2005

Update -Output at Diablo Canyon Back up to Full Capacity

PG&E's two 1,087 MW reactors were brought back to full capacity on Sunday after they were reduced to 25% last week due to rough seas.

Bloomberg, 12:03 September 19, 2005

Update - Entergy's Fitzpatrick Nuclear Generating Station Returned to Full Power

Reuters 15:38, September 19, 2005

Update - Exelon's 1,112 Unit 2 at its Peach Bottom Nuclear Generating Station in Pennsylvania Returned to Full Power

Reuters 15:38, September 19, 2005

Ameran's Callaway Reactor in Missouri Idled For Refueling and Upgrade

The plant will be idled for 70 to 75 days, double the normal amount of time for a refueling; in addition to the refueling, all four steam generators will be replaced.

Bloomberg, 09:38 September 19, 2005

Progress Energy's 710 MW Robinson Nuke in South Carolina Shut for Refueling and Upgrade

The shut down will last an extra week to replace the reactor vessel head.

Bloomberg, 12:31 September 19, 2005

Topaz's 632 MW Coal-fired Coletto Creek Unit in Texas Shut September 19

Reuters 16:28 September 19, 2005

NRG/Dynergy's 335 MW Gas-fired El Segundo 3 Unit in CA Shut September 19

Reuters 16:28 September 19, 2005

OPG's 494 MW Lambton 3 Coal-fired Unit in Ontario Shutdown September 19

Reuters, 15:38 September 19, 2005

Groundbreaking for New Power Plant in Nebraska City, NE

Construction began last week on Omaha Public Power District's first new power plant in 25 years. The coal-fired plant will generate 663 MW of electricity. The plant is scheduled for completion in 2009.

<http://powermarketers.net/content/inc.net/newsreader.asp?ppa=8knpp%5E%5BeimmsusWTmj%27%40%3E%20bfek%5Cv>

Petroleum

Workers Being Evacuated from Gulf as Rita approaches

By Monday morning a number of companies including Shell, Transocean, Chevron, Diamond Offshore, and BP were evacuating staff from offshore oil and gas facilities in the Gulf of Mexico as Hurricane Rita approached. Other companies indicated that they would evacuate by Tuesday or were monitoring the situation and might evacuate depending on the eventual path of the storm.

Reuters 13:48, September 19, 2005

Reuters 11:59, September 19, 2005

Reuters 12:14, September 19, 2005

Reuters 12:15, September 19, 2005

Fatal Fire at Teppco Ohio Propane Storage Facility

A propane fire at a dehydration unit at the Teppco Todhunter propane storage facility near Middletown, Ohio killed one worker. Teppco indicated that the facility has been shut down and that an investigation is underway.

Reuters 13:251, September 19, 2005.

OPEC to Offer Spare Production Capacity

At its meeting on September 20, OPEC members will finalize an agreement to maintain the current level of production and in addition will make available any spare production to any customer that requests additional supply.

Reuters 13:51, September 19, 2005.

For additional information on petroleum, see Highlights/Major Developments

Natural Gas

Natural Gas Futures at Record High

Fears that tropical storm Rita will hit major producing regions in the Gulf propelled natural gas futures prices to a record \$12.58 per million btu Monday. The previous record of \$12.30 per million btu was set August 31. Several companies have already begun evacuating rigs and platforms in anticipation of the storm, for details, see the Petroleum section.

Bloomberg, 13:52 September 19, 2005

Natural Gas Line Explodes in Livingston, MT September 15

A natural gas line exploded Thursday in Livingston, MT, causing a fire which damaged several homes and injured four people. Work was being done on sewer lines in the vicinity, but whether this was the cause of the explosion is unknown.

http://www.dhs.gov/interweb/assetlibrary/DHS_Daily_Report_2005-09-19.pdf

AES Proposes LNG Terminal in Boston Harbor

On Friday, AES Corp announced a plan to build an LNG import terminal on an island in Boston Harbor. The company says proposed site has two advantages: it would provide more storage than the existing Distrigas terminal, and be farther from residential areas than the proposed Fall River facility.

Source: [NGI's Daily Gas Price Index](#)

<http://intelligencepress.com/>

http://pro.energycentral.com/professional/news/gas/news_article.cfm?id=5956536

For additional information on natural gas, see Highlights/Major Developments

Other News

Hoist Accident Forces Consol Energy to Close Mine – Force Majeure Declared

An accident on September 18 has forced Consol Energy to close its Buchanan mine and to declare force majeure. A hoist failed causing a load of coal to drop more than 1,500 feet. The repairs to the lift system are expected to take several weeks. Force majeure became necessary since the mine has no inventory and produces between 350,000 and 400,000 tons of coal per month.

Reuters 10:40, September 19, 2005.

Bloomberg 10:59, September 19, 2005.

New Mexico Issues Permit for new Surface Coal Mine

The energy minerals and natural Resources Department issued a permit for El Segundo Surface Coal Mine to begin operations. The mine is expected to produce some 102 million tons of coal over a period of 30 years.

http://pro.energycentral.com/professional/news/power/news_article.cfm?id=5956910

Energy Prices

	Latest (09/19/05)	Week Ago	Year Ago
CRUDE OIL West Texas Intermediate US \$/Barrel	67.21	63.29	46.33
NATURAL GAS Henry Hub \$/Million Btu	11.99	10.68	5.22

Source: Reuters

This Week in Petroleum from the Energy Information Administration (EIA)

<http://tonto.eia.doe.gov/oog/info/twip/twip.asp>

Updated on Wednesdays

Weekly Petroleum Status Report from EIA

http://www.eia.doe.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html

Updated after 1:00pm (Eastern time) on Wednesdays

Natural Gas Weekly Update from EIA

<http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp>

Updated after 2:00 pm (Eastern time) on Thursdays

ENSEC threat awareness blog site from Energy Assurance

<http://ensec.blogspot.com>